

**ABSTRACT**

A method and system for combining signals in a receiver are provided. If the current packet is determined to be the retransmitted packet according to predetermined criteria, The retransmitted packet and the previously stored packet in error with the same packet number are combined using a maximum ratio combining method according to the signal-to-noise-ratio (SNR) calculated from the preamble of each packet. With this type of diversity combining, a reliable data packet transmission in a shorter time period can be obtained while increasing the SNR and reducing the throughput time in multipath channel.